



NOAA and NOAA Partnership Stations Relative to the Storm Yorktown USCG Training Center, VA Wachapreague, VA Sewells Point, VA Kiptopeke, VA **Money Point, VA** Chesapeake Bay Bridge Tunnel, Duck, NC Oregon Inlet Marina, NC 10/10/16 8 PM **USCG Station Hatteras, NC** 10/09/16 11 AM Beaufort, NC 10/10/16 8 AM Wrightsville Beach, NC 10/09/16 8 PM Wilmington, NC Active Stations 1:8,000,000 Extent TS Force Winds ctent Hurricane Force Winds

Storm Analysis

As of 10/09/2016 12:00 EDT, Water levels from Duck, NC to Wachapreague, VA are still plotting above normal tidal levels, ranging from 2 to 3.5 feet above tidal predictions. Water levels South of Duck, along North Carolina have returned and are running at normal tide levels, except for Station Hatteras which is plotting at 3.5 feet above tidal predictions.

Winds are weakening along the coast of North Carolina and Virginia, ranging from 10 to 38 knots. Gusts are up to 50 knots at Oregon Inlet Marina, NC. Barrometric pressure is rising at all stations.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: KLO

NATIONAL HURRICANE CENTER PUBLIC ADVISORY:

BULLETIN

POST-TROPICAL CYCLONE MATTHEW ADVISORY NUMBER 46 NWS NATIONAL HURRICANE CENTER MIAMI FL AL142016 1100 AM EDT SUN OCT 09 2016

...STRONG WINDS AND SOUND-SIDE STORM SURGE FLOODING CONTINUE OVER THE NORTH CAROLINA OUTER BANKS...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

All Hurricane Watches have been discontinued.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

- * Cape Fear to Duck
- * Pamlico and Albemarle Sounds

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

DISCUSSION AND 48-HOUR OUTLOOK

At 1100 AM EDT, the center of Post-Tropical Cyclone Matthew was located near 35.2N 73.7W. The post-tropical cyclone is moving toward the east near 15 mph, and this general motion is expected to continue during the next day or so. On the forecast track, the center of Matthew will move farther offshore of the coast of the North Carolina Outer Banks

today and tonight.

Maximum sustained winds are near 75 mph with higher gusts. Gradual weakening is forecast during the next day or so, and the low is expected to be absorbed within a frontal boundary Monday night.

Hurricane-force winds extend outward up to 70 miles, mainly to the southwest of the center, and tropical-storm-force winds extend outward up to 240 miles. A coastal marine observing site near Hatteras, North Carolina, recently reported a gust to 61 mph. A wind gust to 55 mph has been observed within the past hour or so at Dare County Airport near Manteo, North Carolina.

The estimated minimum central pressure is 984 mb.

HAZARDS AFFECTING LAND

WIND: Tropical storm conditions are expected to continue over the warning area this afternoon, and then gradually diminish by this evening.

STORM SURGE: There is a danger of life-threatening inundation through this afternoon along the coast from Cape Lookout to Duck, North Carolina, including portions of the Pamlico and Albemarle Sounds. Water levels should subside by this evening. For a depiction of areas at risk, please see the Prototype National Weather Service Storm Surge Watch/Warning Graphic. For information specific to your area, please see products issued by your local National Weather Service forecast office.

The Prototype Storm Surge Watch/Warning Graphic is a depiction of areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at hurricanes.gov.

RAINFALL: Rainfall will diminish across the coastal Mid-Atlantic by early afternoon. Additional rainfall amounts of less than an inch are possible across Delaware and eastern Maryland. Life-threatening flooding will continue over portions of eastern North Carolina that have received record rains from Matthew.

SURF: Swells generated by Matthew will continue to affect much of the southeastern and Mid-Atlantic coasts of the United States during the next couple of days. These swells will likely cause life-threatening surf and rip current conditions. Please consult products from your local weather office.

NEXT ADVISORY

Next intermediate advisory at 200 PM EDT. Next complete advisory at 500 PM EDT.

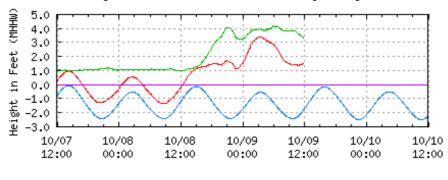
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Forecaster Brown

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Money Point - Water Level, Money Point - Winds, Sewells Point - Water Level, Sewells Point - Barometric, Chesapeake Bay Bridge Tunnel - Water Level, Chesapeake Bay Bridge Tunnel - Winds, Chesapeake Bay Bridge Tunnel - Barometric, Kiptopeke - Water Level, Kiptopeke - Winds, Yorktown USCG Training Center - Water Level, Yorktown USCG Training Center - Winds, Yorktown USCG Training Center - Barometric, Wachapreague - Water Level, Wachapreague - Winds, Wachapreague - Barometric, Duck - Water Level, Duck - Winds, Duck - Barometric, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, Oregon Inlet Marina - Barometric, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, USCG Station Hatteras - Barometric, Beaufort - Water Level, Beaufort - Winds, Beaufort - Barometric, Wrightsville Beach - Water Level, Wilmington - Water Level, Wilmington - Barometric

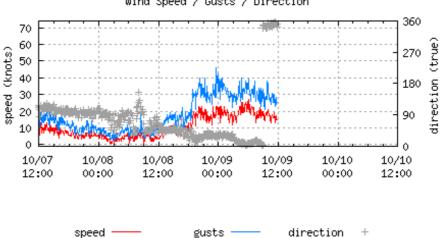
NOAA/NOS/CO-OPS <u>8639348 Money Point, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

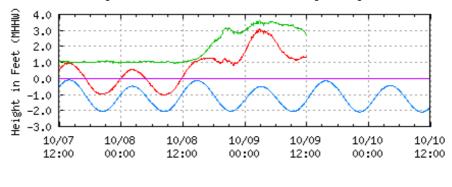
Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: 1.54 ft. Predicted: -1.80 ft. Residual: 3.34 ft. Historical Maximum Water Level: Nov 13 2009, 5.37 ft. Next High Tide: 10/09/2016 15:54 (EDT), -0.16 ft.

NOAA/NOS/CO-OPS <u>8639348 Money Point, VA</u> Wind Speed / Gusts / Direction



Last Observed Sample: 10/09/2016 11:48 (EDT) Wind Speed: 15 knots Gusts: 25 knots Direction: 352° T

NOAA/NOS/CO-OPS <u>8638610 Sewells Point, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

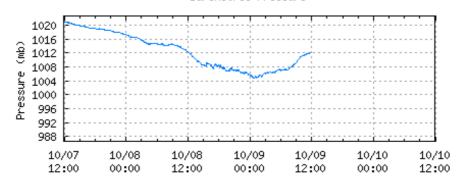


Predicted Tide —— (Obs-Pred)
Observed WL — MHHW

Last Observed Sample: 10/09/2016 11:54 (EDT). Data relative to MHHW Observed: 1.34 ft. Predicted: -1.40 ft. Residual: 2.74 ft. Historical Maximum Water Level: Aug 23 1933, 5.26 ft.

Next High Tide: 10/09/2016 15:45 (EDT), -0.15 ft.

NOAA/NOS/CO-OPS <u>8638610 Sewells Point, VA</u> Barometric Pressure

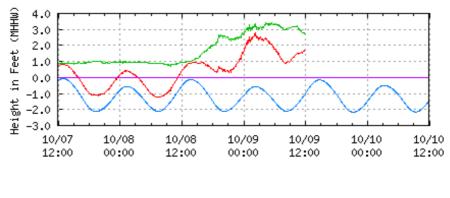


barometric pressure ----

Last Observed Sample: 10/09/2016 11:54 (EDT)

Barometric Pressure: 1012.2 mb

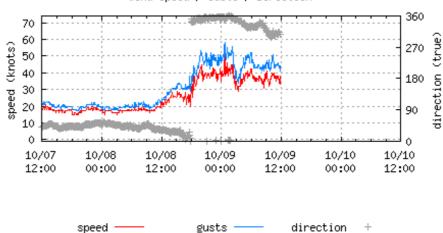
NOAA/NOS/CO-OPS 8638863 Chesapeake Bay Bridge Tunnel, VA Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide _____ (Obs-Pred) ____ Observed WL ____ MHHW ___

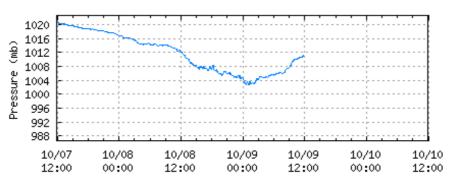
Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: 1.69 ft. Predicted: -1.06 ft. Residual: 2.75 ft. Historical Maximum Water Level: Nov 12 2009, 4.66 ft. Next High Tide: 10/09/2016 14:43 (EDT), -0.15 ft.

NOAA/NOS/CO-OPS <u>8638863 Chesapeake Bay Bridge Tunnel, VA</u> Wind Speed / Gusts / Direction



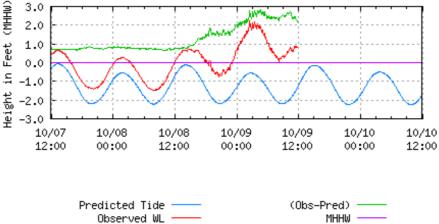
Last Observed Sample: 10/09/2016 11:48 (EDT) Wind Speed: 33 knots Gusts: 41 knots Direction: 307° T

NOAA/NOS/CO-OPS <u>8638863 Chesapeake Bay Bridge Tunnel, VA</u> Barometric Pressure



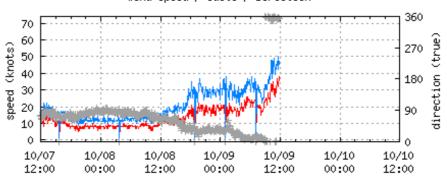
barometric pressure ——
Last Observed Sample: 10/09/2016 11:48 (EDT)
Barometric Pressure: 1011.1 mb

NOAA/NOS/CO-OPS <u>8632200 Kiptopeke, VA</u>
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



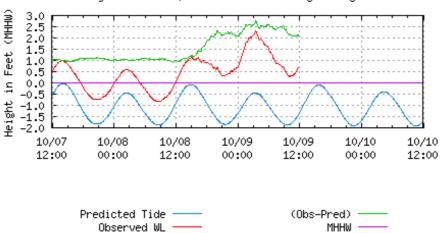
Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: 0.88 ft. Predicted: -1.32 ft. Residual: 2.20 ft. Historical Maximum Water Level: Mar 8 1962, 4.13 ft. Next High Tide: 10/09/2016 15:07 (EDT), -0.14 ft.

NOAA/NOS/CO-OPS <u>8632200 Kiptopeke, VA</u> Wind Speed / Gusts / Direction



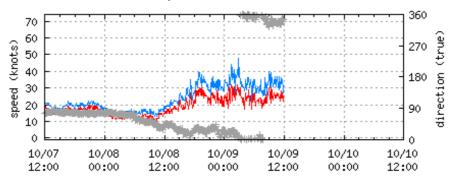
speed gusts direction + Last Observed Sample: 10/09/2016 11:48 (EDT)
Wind Speed: 27 knots Gusts: 46 knots Direction: 1° T

NOAA/NOS/CO-OPS <u>8637689 Yorktown USCG Training Center, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



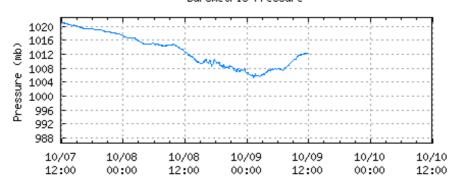
Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: 0.68 ft. Predicted: -1.40 ft. Residual: 2.08 ft. Historical Maximum Water Level: Nov 12 2009, 4.27 ft. Next High Tide: 10/09/2016 15:46 (EDT), -0.09 ft.

NOAA/NOS/CO-OPS <u>8637689 Yorktown USCG Training Center, VA</u> Wind Speed / Gusts / Direction



speed — gusts — direction + Last Observed Sample: 10/09/2016 11:48 (EDT)
Wind Speed: 22 knots Gusts: 27 knots Direction: 340° T

NOAA/NOS/CO-OPS <u>8637689 Yorktown USCG Training Center, VA</u> Barometric Pressure

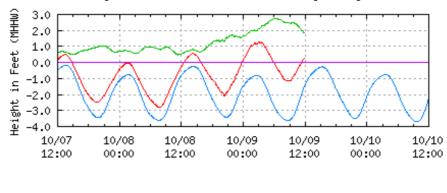


barometric pressure ----

Last Observed Sample: 10/09/2016 11:48 (EDT)

Barometric Pressure: 1012.4 mb

NOAA/NOS/CO-OPS <u>8631044 Wachapreague</u>, <u>VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

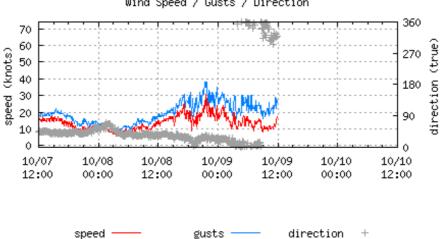


Predicted Tide _____ (Obs-Pred) _____ Observed WL ____ MHHW ____

Last Observed Sample: 10/09/2016 11:54 (EDT). Data relative to MHHW Observed: 0.34 ft. Predicted: -1.46 ft. Residual: 1.80 ft. Historical Maximum Water Level: Feb 5 1998, 4.41 ft.

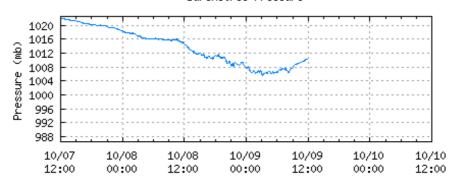
Next High Tide: 10/09/2016 15:19 (EDT), -0.27 ft.

NOAA/NOS/CO-OPS 8631044 Wachapreague, VA Wind Speed / Gusts / Direction



Last Observed Sample: 10/09/2016 11:54 (EDT) Wind Speed: 12 knots Gusts: 26 knots Direction: 335° T

NOAA/NOS/CO-OPS <u>8631044 Wachapreague</u>, <u>VA</u> Barometric Pressure



barometric pressure ——
Last Observed Sample: 10/09/2016 11:54 (EDT)
Barometric Pressure: 1010.2 mb

NOAA/NOS/CO-OPS 8651370 Duck, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW) Height in Feet (MHHW) 4.0 3.0 2.0 1.0 0.0 -1.0 -2.0 -3.0 10/07 10/08 10/08 10/09 10/09 10/10 10/10

12:00

00:00

12:00



00:00

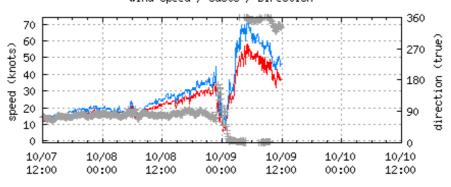
12:00

00:00

12:00

Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: 1.40 ft. Predicted: -0.98 ft. Residual: 2.38 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft. Next High Tide: 10/09/2016 13:59 (EDT), -0.20 ft.

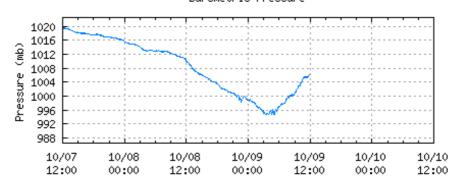
NOAA/NOS/CO-OPS <u>8651370 Duck, NC</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 10/09/2016 11:48 (EDT)

Wind Speed: 37 knots Gusts: 46 knots Direction: 331° T

NOAA/NOS/CO-OPS <u>8651370 Duck</u>, NC Barometric Pressure

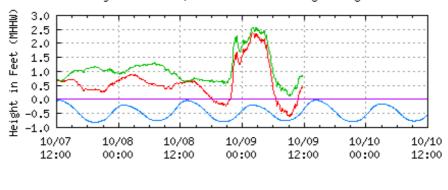


barometric pressure ----

Last Observed Sample: 10/09/2016 11:48 (EDT)

Barometric Pressure: 1006.2 mb

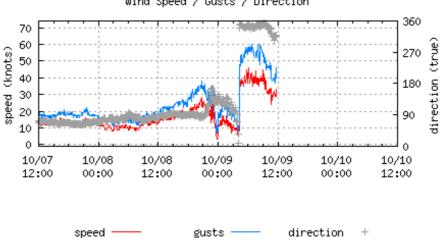
NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) —
Observed WL MHHW —

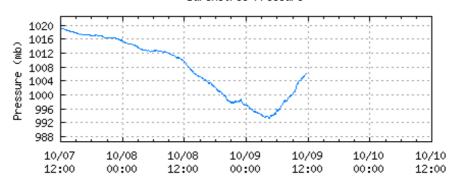
Last Observed Sample: 10/09/2016 11:42 (EDT). Data relative to MHHW Observed: 0.41 ft. Predicted: -0.40 ft. Residual: 0.81 ft. Historical Maximum Water Level: Aug 28 2011, 6.32 ft. Next High Tide: 10/09/2016 14:17 (EDT), -0.02 ft.

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina</u>, NC Wind Speed / Gusts / Direction



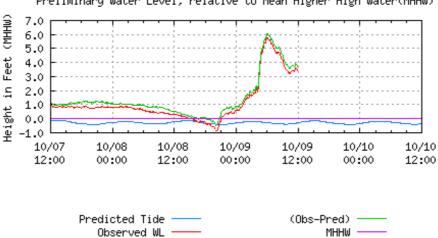
Last Observed Sample: 10/09/2016 11:42 (EDT) Wind Speed: 33 knots Gusts: 46 knots Direction: 320° T

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Barometric Pressure



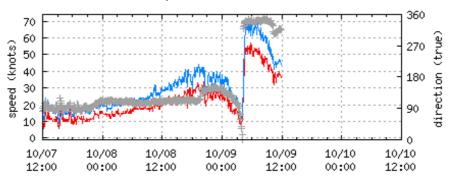
barometric pressure ——
Last Observed Sample: 10/09/2016 11:42 (EDT)
Barometric Pressure: 1006.3 mb

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatterss, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: 3.43 ft. Predicted: -0.29 ft. Residual: 3.72 ft. Historical Maximum Water Level: Oct 29 2012, 4.02 ft. Next High Tide: 10/09/2016 15:27 (EDT), -0.15 ft.

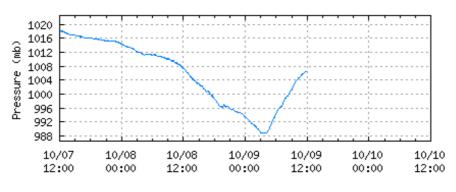
NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatterss</u>, NC Wind Speed / Gusts / Direction



speed gusts direction +
Last Observed Sample: 10/09/2016 11:48 (EDT)

Wind Speed: 36 knots Gusts: 44 knots Direction: 315° T

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatteras</u>, <u>NC</u> Barometric Pressure

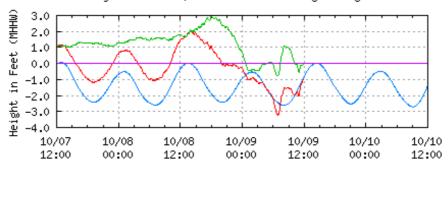


barometric pressure ----

Last Observed Sample: 10/09/2016 11:48 (EDT)

Barometric Pressure: 1006.5 mb

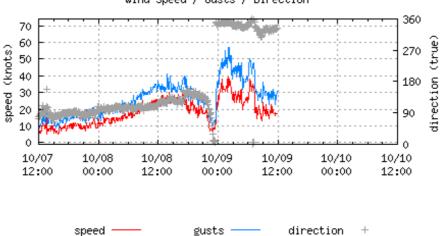
NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide — (Obs-Pred) — Observed WL — MHHW —

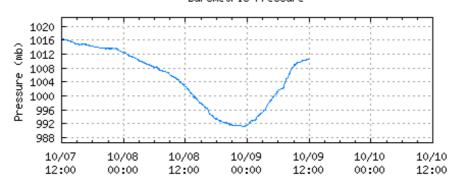
Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: -0.99 ft. Predicted: -0.92 ft. Residual: -0.07 ft. Historical Maximum Water Level: Sep 14 2005, 3.01 ft. Next High Tide: 10/09/2016 14:27 (EDT), 0.02 ft.

NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 10/09/2016 11:48 (EDT) Wind Speed: 17 knots Gusts: 31 knots Direction: 333° T

NOAA/NOS/CO-OPS 8656483 Beaufort, NC Barometric Pressure



barometric pressure -Last Observed Sample: 10/09/2016 11:48 (EDT) Barometric Pressure: 1010.5 mb

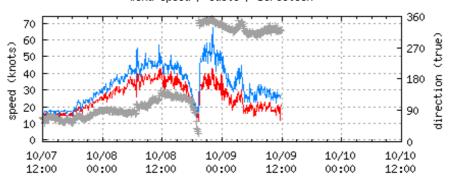
NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW) 4.0 3.0 2.0 in Feet 1.0 0.0 -1.0 -2.0 -3.0 -4.0 10/07 10/08 10/08 10/09 10/09 10/10 10/10 12:00 00:00 12:00 00:00 12:00 00:00 12:00

Predicted Tide (Obs-Pred) Observed WL MHHW

Observed: -1.35 ft. Predicted: -0.88 ft. Residual: -0.47 ft. Historical Maximum Water Level: Sep 25 2008, 2.81 ft. Next High Tide: 10/09/2016 14:00 (EDT), 0.01 ft.

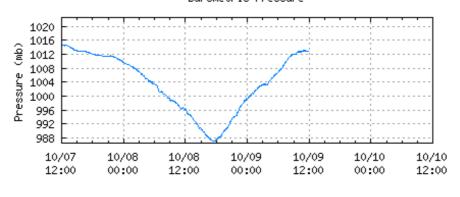
Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Wind Speed / Gusts / Direction



speed — gusts — direction +
Last Observed Sample: 10/09/2016 11:48 (EDT)
Wind Speed: 21 knots Gusts: 27 knots Direction: 318° T

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Barometric Pressure

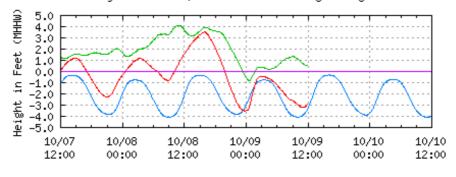


barometric pressure ----

Last Observed Sample: 10/09/2016 11:48 (EDT)

Barometric Pressure: 1012.8 mb

NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



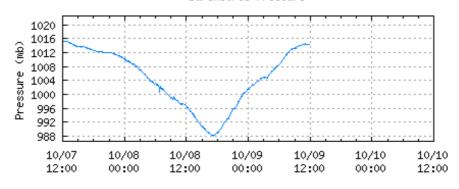
Predicted Tide ———
Observed WL ———

(Obs-Pred) ——

Last Observed Sample: 10/09/2016 11:48 (EDT). Data relative to MHHW Observed: -2.93 ft. Predicted: -3.43 ft. Residual: 0.50 ft.

Historical Maximum Water Level: Oct 15 1954, 3.47 ft. Next High Tide: 10/09/2016 16:05 (EDT), -0.32 ft.

NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Barometric Pressure



barometric pressure -

Last Observed Sample: 10/09/2016 11:48 (EDT)

Barometric Pressure: 1014.3 mb

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8639348	Money Point, VA	10/09/2016 11:48 (EDT)	1.54 ft	-1.80 ft	3.34 ft	3.43 ft
8638610	Sewells Point, VA	10/09/2016 11:54 (EDT)	1.34 ft	-1.40 ft	2.74 ft	3.10 ft
8638863	Chesapeake Bay Bridge Tunnel, VA	10/09/2016 11:48 (EDT)	1.69 ft	-1.06 ft	2.75 ft	2.79 ft
8632200	Kiptopeke, VA	10/09/2016 11:48 (EDT)	0.88 ft	-1.32 ft	2.20 ft	2.21 ft
8637689	Yorktown USCG Training Center, VA	10/09/2016 11:48 (EDT)	0.68 ft	-1.40 ft	2.08 ft	2.30 ft
8631044	Wachapreague, VA	10/09/2016 11:54 (EDT)	0.34 ft	-1.46 ft	1.80 ft	1.27 ft
8651370	Duck, NC	10/09/2016 11:48 (EDT)	1.40 ft	-0.98 ft	2.38 ft	1.73 ft
8652587	Oregon Inlet Marina, NC	10/09/2016 11:42 (EDT)	0.41 ft	-0.40 ft	0.81 ft	2.39 ft
8654467	USCG Station Hatteras, NC	10/09/2016 11:48 (EDT)	3.43 ft	-0.29 ft	3.72 ft	5.76 ft
8656483	Beaufort, NC	10/09/2016 11:48 (EDT)	-0.99 ft	-0.92 ft	-0.07 ft	2.10 ft
8658163	Wrightsville Beach, NC	10/09/2016 11:48 (EDT)	-1.35 ft	-0.88 ft	-0.47 ft	2.63 ft
8658120	Wilmington, NC	10/09/2016 11:48 (EDT)	-2.93 ft	-3.43 ft	0.50 ft	3.53 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce